

No. 735,463.

PATENTED AUG. 4, 1903.

P. S. BUTTERWORTH.
ROTARY RAILROAD TIME TABLE JACKET.

APPLICATION FILED MAY 5, 1902.

NO MODEL.

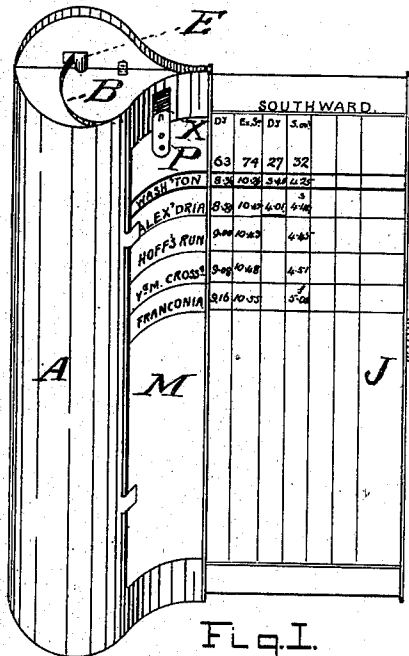


Fig. I.

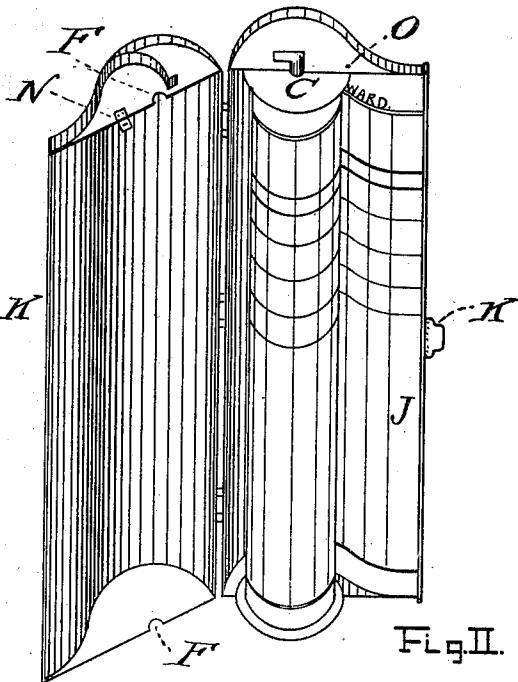


Fig. II.

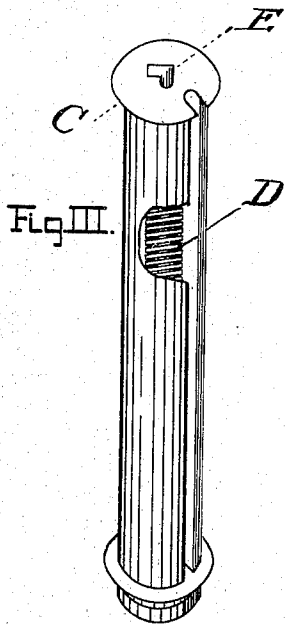


Fig. III.

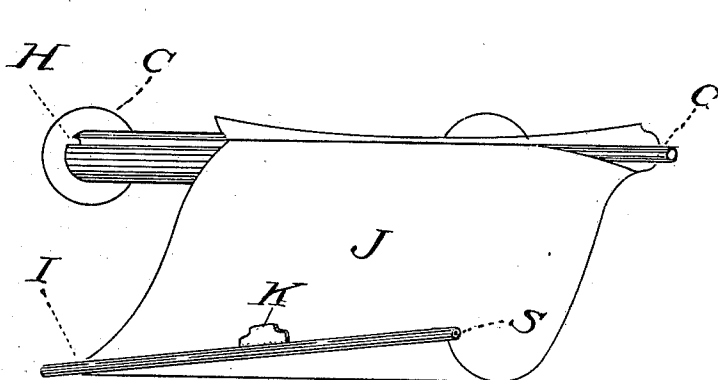


Fig. IV.

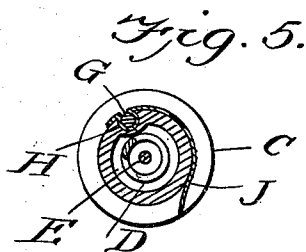


Fig. 5.

Witnesses
Edward S. Bennett.
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UNITED STATES PATENT OFFICE.

PAUL SIMS BUTTERWORTH, OF RICHMOND, VIRGINIA.

ROTARY RAILROAD-TIME-TABLE JACKET.

SPECIFICATION forming part of Letters Patent No. 735,463, dated August 4, 1903.

Application filed May 5, 1902. Serial No. 105,912. (No model.)

To all whom it may concern:

Be it known that I, PAUL SIMS BUTTERWORTH, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented a new and useful machine for the protection and manipulation of a time-table of a railroad or other transportation company, the invention to be known as a "Rotary Railroad-Time-Table Jacket," of which the following is a specification.

My invention relates to and permits convenient and expeditious reference to the various schedules on a time-table of a railroad or other transportation company and protects the sheet from mutilation and defacement by preventing contact with grease and other objectionable substances incidental to train-service. It is especially designed for the use of railroad-enginemen while on trains. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure I is a perspective view of the entire machine, showing an adjustable station-name plate M and partial-exposure time-table J. Fig. II is a perspective view of the machine as it appears partly open with roller in position on which is wound the time-table to its stationary and normal position as when not in actual use. Fig. III illustrates the roller removed from the jacket A in the manner in which the time-table is to be wound. Fig. IV is a perspective view of the time-table sheet, showing the same being attached to the roller. Fig. V is a cross-section of Fig. IV.

The machine is constituted as follows:

A cylindrical jacket A, divided and hinged at the back, has a curved spring B fitted to one end of one section of jacket A, as shown in Fig. I, and has two adjustable station-name plates M fitted to the concave outside surface on each half of the jacket A in the manner shown in Fig. I. The jacket is suitably shaped to inclose a hollow rotating cylinder called the "roller," Fig. III, which is connected to one end of an internal spiral spring D, that is coiled around and the other end connected to the axle E, which extends lengthwise through the center of the roller C, projecting beyond the ends and having its end

fitting as journals into suitable sockets F F in the end sections of the jacket, Fig. II. The roller C is provided with a small rod G, fitted to the groove H, as shown in Fig. IV. A small movable tube I has a slot lengthwise through its surface, which incloses a rod S, that extends through it lengthwise. This tube and rod serve as an operating means for the traveling end of the time-table.

To adjust the time-table to the roller C, lap one end of the doubled sheet J around rod G once, insert rod and lap into groove H the full length of rod G, allowing the free end of the sheet to protrude between the parallel edges of groove H, as partly indicated in Fig. IV. To adjust the opposite end of double sheet around the small rod is withdrawn from the tube I, and said opposite end is lapped around the rod S in the same manner as is done with the roller C, above mentioned. To place the time-table in jacket, wind the entire sheet around the roller C, place the latter inside of jacket A, as indicated in Fig. II, allowing the margin I to remain just outside and parallel with the front edges of the closed jacket. A few turns of the small projecting crank end of the rod E, acting on spring D and engaged by spring B to prevent unwinding, will apply the necessary tension for retaining and automatically winding time-table J. To consult the time-table, hold the jacket A in one hand, draw the time-table out by pulling on thumb-strap K with the other hand to the desired train-number at top of column. The figures next to and exactly opposite any station-name on plate M will be the desired information. By releasing the thumb-strap K the time-table returns automatically within the jacket by action of spring D inside roller. The jacket is held firmly fastened by a flat and punctured spring N on the end of one-half of jacket engaging a small pin O on the other half, Fig. II. An adjustable station-name plate M having a strip of flat spring metal P which is attached to and projects above the upper portion of said plate, said part P being adapted to engage the teeth in a flat ratchet-plate X, secured above the same.

To the best of my knowledge and belief I am the original and first inventor of the ma-

chine as set forth in the above specification for handling a railroad time-table by the rotary method, as substantially stated.

I claim—

- 5 1. In a railroad time-table, the combination with a sectional hinged casing, of a spring-roller having its axis journaled therein, and also provided with a longitudinal slot therein, a rod having a detachable time-table thereon
10 detachably secured in the slot and adapted to be movably wound on the roller, a spring secured to the casing and detachably connected to the axis of the roller, and the time-table also having its outer marginal operating
15 portion secured to a tube, substantially as specified.

2. In a railroad time-table, the combination

with a sectional hinged casing, of a spring-roller having its axis journaled therein, said roller also provided with a longitudinal slot, 20 a rod having a detachable time-table thereon detachably secured in said slot and adapted to be movably wound on the roller, a spring secured to the casing and detachably connected to the axis of the roller, the time-table 25 also having its outer edge portion secured to a tube, and the station-name plate, and means for attaching the same to one of the sections of the casing, substantially as specified.

PAUL SIMS BUTTERWORTH.

Witnesses:

HOWARD M. FLEET,
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